Dear colleagues,

Regardless to the fact that BESTSDI project finished a year ago, and we are hit by Covid-19 pandemic, the project activities did not stop. Therefore, we want to keep you informed about the partner consortia activities and we decided further to release our e-Newsletter BESTSDI Info which will project partners and stakeholders. So, just few days before end of this very special year we release this 29th issue of BESTSDI Info.

Željko Bačić, Project coordinator

BESTSDI COORDINATION BODY ESTABLISHED

In accordance with the provisions of the BESTSDI Consortia Memorandum of Understanding on April 20th, 2020 first meeting of project Coordination Body has been held in online mode. At the meeting, the Coordination Body has been established and first Chairman, prof. Gezim Gjata from Polytechnic University of Tirana for year 2020 has been elected. Coordination Body discussed further BESTSDI project sustainability plan of activities for 2020 which has been adopted. Further, the cooperation activities, both among the partners and on the national level have been discussed and set of suggestions have been delivered and accepted by the partners. The Minutes of the meeting are available on the project webpage.

Željko Bačić, Zagreb

BESTSDI PROJECT OUTCOME BROCHURE PUBLISHED

After BESTSDI project lifetime BESTSDI Project outcome brochure is published. BESTSDI Project outcome brochure is a compilation of all the final achievements of BESTSDI project in which all project partners contribute to. The brochure presents the key project outcomes, quality improvements of higher education in Geographical Information Science and Technology, new and innovative education programme developments, lifelong learning courses, the partnerships with public authorities and business sector to develop the annual national SDI reports, the dissemination of project experiences and results.

All partners have been invited to compile their contributions, and I especially thank my colleagues: Spiro Grazhdani (Agricultural University of Tirana), Dušan Jovanović and Danijel Kukaras (University of Novi Sad), Suada Džebo, Ammar Šarić, Melisa Ljuša and Hamid Custović (University of Sarajevo), Edmond Hoxha Bilbil Nurçe and Gëzim Gjata (Polytechnic University of Tirana), Mladen Amović (University of Banja Luka), Mirza Ponjavić and Rejhana Dervišević
The brochure (ISBN: 978-953-6082-25-4) publisher by University of Zagreb, Faculty of Geodesy, editors are Vesna Poslončec-Petrić, Željko Bačić, Joep Crompvoets and graphic design signed by Valentina Vuković.

**BESTSDI Project outcome brochure** was printed in 1000 copies and a digital version is available [here](#).

**INTERDISCIPLINARY STUDY PROGRAM “NATURAL DISASTER PROTECTION” APPROVED**

The study program, Protection against Natural Disasters, is an interdisciplinary master’s academic study, developed through the Erasmus + capacity building project in higher education ([Development of a master curriculum for disaster risk management in the Western Balkans- NatRisk, 573806-EPP-1-2016-1- RS-EPPKA2-CBHE-JP](#)). The master study program is designed as a one-year, lasting two semesters (60 ECTS). The study offers 16 different subjects, of which three are compulsory subjects and three electives, and in the last semester also the preparation of a final thesis. Classes take place only in one semester, while the summer semester is scheduled for active preparation of the final thesis.

**Reasons for launching the study program:**

Frequent occurrences of natural disasters, both in the world and in our region, are becoming one of the world’s most important problems and factors in the further sustainable development of human civilization. Natural disasters have recently become a source of permanent threat to the community and the environment as a whole. Exposure to natural disasters (droughts, fires, floods, landslides, earthquakes, etc.) is largely increased due to the poor level of knowledge of the causes, mechanisms of action and methods of protection. Managing the risks of natural disasters means thinking in advance about potential events that may occur, the effects and consequences that institutions may face in the future, as well as taking timely measures to minimize risks and thus avoid or reduce adverse effects. A special problem of countries in transition, such as Bosnia and Herzegovina, is the lack of trained professionals who will be ready to act preventively and solve problems in the field of protection against natural disasters / disasters, in order to achieve an acceptable level of risk.

**The importance of including knowledge and experience gained through the BESTSDI Erasmus + project:**

Based on the results collected from several ERASMUS + projects in the region (GEOWEB, BESTSDI), it was recognized that the use of GIS (and Geoinformatics) tools and knowledge, especially in the study of this issue (natural disaster management) is necessary. Namely, the well-structured and software-supported use of geospatial data has been identified as one of the key support factors for successful risk management. As a result of participation, primarily in the BESTSDI project, teaching syllabi were supplemented by the acquired knowledge and skills in the project. Out of a total of 16 subjects, the issue of spatial data is included in 7, of which 3 are compulsory subjects, (shown in Table below).

**Table 1. Representation of issues related to GIS and spatial data in syllabus master studies**

<table>
<thead>
<tr>
<th>Subject name</th>
<th>Involvement of the issue SDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural disasters and catastrophes</td>
<td>20%</td>
</tr>
<tr>
<td>Managing risks from natural disasters</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Spatial Planning in the Function of Disaster Risk Reduction</strong></td>
<td>20%</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Protection and rescue system in natural disasters</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Water protection and sustainable development</strong></td>
<td>10%</td>
</tr>
<tr>
<td><strong>Spatial Databases and IPPs</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>Geoinformation and communication technologies for risk management of natural catastrophes</strong></td>
<td>60%</td>
</tr>
</tbody>
</table>

**EUROSDR PUBLISHED BESTSDI BUSINESS-ACADEMIA SURVEY REPORT**

European Spatial Data Research Association (EuroSDR) published in June 2020 in its edition the *Academia-Business Survey on Needs and Cooperation in field of Spatial Data Infrastructure* which has been prepared by Joep Crompvoets, Željko Bačić and Vesna Poslončec-Petrić in cooperation between BESTSDI project and EuroSDR association.

This survey was undertaken as part of the Erasmus+ project BESTSDI – ‘Western Balkans Academic Education Evolution and Professional’s Sustainable Training for Spatial Data Infrastructures’ together with EuroSDR. Document is available and can be downloaded on EuroSDR webpage.

**Željko Bačić, Zagreb**

**2ND BESTSDI COORDINATION BODY MEETING HELD (POST-BESTSDI PROJECT, Y+1)**

On November 2nd, 2020, took place the 2nd Memorandum of Understanding Coordination Body Meeting on BESTSDI Project – Post Y+1 in online mode. The meeting was attended by a part of MoU CB members mainly project Coordinators and partner leaders of Best SDI project. Based in activities and regular reporting of CB Chairperson in accordance with agenda, the meeting was focusing on raising and addresses once more on efforts and activities by Balkan country partners on sustainability of BESTSDI results in project post time, Y+1.

As Agenda was adopted, two presentation were kept covering the problems related with the activities and reporting for the Y+1 of post time BESTSDI project which cover the duration 15 October 2019 till 15 October 2020. A common Presentation prepared by Prof. Željko Bačić and MoU Chairperson Gezim Gjata make evident the importance of continuation of activities on Sustainability of Best SDI results achieved after the project was over by emphasising that this is now is going to be an institutional requirement of s for the Erasmus + projects in post-time. The presentations also summarized measures and steps undertaken from the CB Chairperson in collaboration with Projects Coordinators to form, support and facilitate a standard process of activities on sustainability of results even for the coming years. Reflecting on Y+1 plan number of activities did not take place due to the Covid-19 pandemic, but still we saw that partners were active in updating learning materials and execution of SDI courses and lessons and making SDI labs fully operative.
With the aim to facilitate the reporting of the Y+1, a reporting questioner has been prepared and presented by CB Chairperson and Project Coordinator. It has been approved and was disseminated to all partners.

Assist. Prof. Suada Džebo, reported about NEO Bosnia and Herzegovina mission which took place on October 6th, 2020. She presented and clarified the requirement of EACEA on post project monitoring, the necessity of this monitoring project in 5 years after, as well as reported about the specific monitoring visit and findings of NEO Bosnia and Herzegovina. This experience was presented in a narrative report which was attached to the EACEA questioner.

In line with the starting presentation Project consortia activities in Y +2 (2020/2021) period was presented as a platform for activities of all partner country leaders and new CB Chairperson. Coordination Body has also discussed how to improve and normalise monitoring process as well as the financial aspects in order to intensify the activities and make cooperation process more attractive.

The last decisions were on the Y+1 Reporting by country partners by the questionary form within 18 November as well as on keeping the last MoU CB Meeting for this year after 20 December

Gëzim Gjata, UPT, Tiranë

THE NATIONAL ERASMUS+ OFFICE IN BOSNIA AND HERZEGOVINA FIELD MONITORING VISIT TO THE PROJECT BESTSDI

As part of the Agency monitoring strategy of Erasmus+ CBHE projects, the National Erasmus+ Office in Bosnia and Herzegovina represented by Mr. Suad Muhibic, Head of Office and Mr. Dejan Rosic, Project Officer, carried out a field monitoring visit to our BESTSDI project. The visit took place on 06.10.2020 at the Faculty of Civil Engineering of the University of Sarajevo.

The first part of the meeting was attended by the representative of the EU Delegation to Bosnia and Herzegovina, Mr. Stephan Dahlgren. On behalf of the University of Sarajevo, the meeting was attended by Dr. Suada Džebo UNSA team leader, Dr. Slobodanka Ključanin, Dr. Emina Hadžić, Dr. Medžida Mulić and Ammar Šarić. Due to special measures caused by the COVID pandemic, the meeting was attended by the project coordinator, Prof. Željko Bačić and Assist. Prof. Vesna Poslončec-Petrić from Zagreb via the online application.

Representatives of the National Erasmus+ Office in Bosnia and Herzegovina also had the opportunity to talk to master students of the Faculty of Civil Engineering Emina Hidanović and Emir Mujkić.

As result of the visit, the National Erasmus+ Office in Bosnia and Herzegovina note that the following outcomes and benefits produced by the project continue:

The project successfully finished in October 2019 and all activities were implemented in line with the timetable. The impact is visible at the individual level, institutional level, and to the wider community.

The knowledge and skills gained through project activities contributed to positive changes in teaching methods, and the modernized curriculum enhanced students’ interest.
During the visit, they had a chance to hear two students, which informed them about obtained knowledge regarding Spatial Data thanks to the modernization of the curriculum as one of the main project outcomes. The modernization of the curriculum was implemented at the master level. The project members are also considering modernizing subjects at the bachelor level, which will contribute to the project results' sustainability. The monitoring representatives were informed that new and modernized master curricula are totally in line with the European Credit Transfer System (ECTS) and the European Standards and Guidelines ESGs for QA.

During the project lifetime, two summer schools were organized, and 52 teaching staff were trained. A minimum of three LLL courses per partner was implemented during the academic year 2018/2019. The overall number of organized LLL courses and training is 36, with 664 participants. The participants were not only from the Civil Engineering field.

The representatives from the business sector and national authorities also took part in the LLL courses. As a result, several agreements between HEIs and other stakeholders were signed, which positively impacted the sustainability of the project results after the project duration.

During the monitoring visit, they had a chance to see the purchased equipment and the BESTSDI computer classroom. The visibility obligation is respected; the equipment is in regular use and contributes to practical teaching.

The project website is regularly maintained and visibility obligations are respected: http://bestsdi.eu/. According to the feedback received, all partners were involved into dissemination activities and the project coordinator collected dissemination reports.

The GEOBIZ project 610225-EPP-1-2019-1-HR-EPPKA2-CBHE-JP, coordinated also by the University of Zagreb, continues with the development of the project outcomes from the BESTSDI project, and most project partners from BESTSDI are involved in this project. One of the BESTSDI project outcomes was establishing the network among HEIs project partners, stakeholders from the business sector and national authorities which contributed to making the GEOBIZ project.

The project objectives were relevant to the needs of the project partners in Bosnia and Herzegovina due to fact that Spatial Data Infrastructure is insufficiently developed in Bosnia and Herzegovina and there was a lack of the academic and LLL courses in this field.
As the main concern(s) and challenge(s) for the project, the NEO representatives note the following:

The COVID-19 pandemic has a negative impact on the implementation of meetings, training activities, and to some extent, on practical teaching. Some of these activities are implemented online, but that could have jeopardized the quality of activities.

Given the above, the NEO representatives draw our attention to the following recommendations to reinforce the sustainability and the impact of the project in the longer term:

- Implement planned modernization of BSc. curriculum,
- Put the additional focus on dissemination activities to have enough students in the academic courses and participants in the LLL courses,
- Boost networking activities and promote the project outcomes to stakeholders from the SDI field that was not part of the BESTSDI project consortium.

Suada Džebo, Sarajevo

FINAL EACEA EVALUATION OF BESTSDI PROJECT RECEIVED

On August 5th, 2020 BESTSDI Project office has received EACEA’s assessment of BESTSDI Final Technical Implementation Report and Financial Statement. In accordance with this evaluation BESTSDI project has been awarded with note GOOD (achieving between 60-74 points out of 100). In following months initial financial finding have been contested by the project and reviewed by the EACEA evaluators. Finally, on November 5th, 2020 we have received final financial evaluation. Out of 978.166,66 € awarded by Grant Agreement, project has submitted expenditure of 952.810,87 € out of which 950.691,20 € have been found eligible, what makes 99,8% of submitted costs or 97,2% of granted amount. The third, finals transfer of EU Grant has been transferred to partners in December 2020.

Željko Bačić, Zagreb

THE GEOF BESTSDI TEAM
Vesna, Danijel, Dražen, Zvonimir & Željko

2021

WISH YOU MERRY CHRISTMAS, HAPPY & HEALTHY NEW YEAR!